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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,194

03/16/2004

Jose De La Torre-Bueno

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EXAMINER

WANG, CLAIRE X

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

02/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/803,194	TORRE-BUENO, JOSE DE LA	
	Examiner	Art Unit	
	CLAIRE WANG	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/12/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicants' response to the last Office Action, filed on November 14th, 2008 has been entered and made of record.

Response to Arguments

2. Applicant's arguments filed November 14th, 2008 have been fully considered but they are not persuasive.

a. In response to applicant's remark that Taubman does not teach applying computerized image analysis operations for diagnostic purposes. It is noted that the Taubman teaches the server receives the request from the client and accesses blocks corresponding to the region-of-interest (Col. 21, lines 53-56). By accessing the blocks that corresponds to the clients request, the service is performing image analysis, since by definition image analysis is extracts meaningful information from images.

b. In response to applicant's remark that Bacus2 does not teach non-image diagnostic result. It is noted that Examiner interprets a "non-image diagnostic result" as anything that is not an image. Bacus2 teaches producing a numerical score after the analyzing medical images (Col. 6, lines 29-36) and since a numerical score is not an image, it is interpreted to read on the claimed "non-image diagnostic result."

c. In response to applicant's remark that Bacus2 does not teach compressing, transmitting and decompressing medical images. It is noted that Examiner relies on the teachings of Taubman and Bacus to teach the above and only relies on Bacus2 for the teachings of analyzing medical images to produce a numerical score.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 8-14, 17-22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taubman (US 6,778,709) in view of Bacus et al. (US 7,146,372 hereinafter "Bacus1"), further in view of Bacus et al. (US 6,226,392 hereinafter "Bacus2").

As to claim 1, Taubman teaches a method comprising, generating a compressed image from a source image at a first location (server; Fig. 12, 502) using a lossy compression operation (Fig. 2 teaches the method of generating a layered embedded bitstream which is a lossy compression method, to be exact it is JPEG 2000 compression method); transmitting the compressed image to a remote view station at a second location for display (the server, after receiving the request for image, sends all of the low subband blocks to the client; Col. 21, lines 43-46); decompressing the compressed image file at the remote view station (the client receives the blocks and reconstructs a low resolution image of the entire image and the image is displayed; Col. 21, lines 47-49); selecting a region of the decompressed image at the second location

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(using an input device the user clicks on the region-of-interest, which generates a request for the region to the server; Col. 21, lines 49-52); and at the first location applying computerized image analysis operations to a region of the source image corresponding to the selected region of the decompressed image (the server receives the request from the client and accesses blocks corresponding to the region-of-interest; Col. 21, lines 53-56). However, Taubman does not teach the image that is being compressed, transmitted and decompressed is a medical image.

Bacus1 teaches a way for a viewer to request more magnification or higher resolution of microscope slide through a network to a server (Fig. 1). Thus, Bacus1's system of the viewing microscope slides reads on the claimed medical image. Therefore it would have been obvious for one ordinarily skilled in the art at the time of the invention to combine image transaction system between server and client of Taubman with the microscope slide reading system of Bacus1 since both are very similar system that allows the user to request additional information from an area of interest. Taubman and Bacus1 do not teach wherein the image analysis produces a non-image diagnostic result.

Bacus2 teaches a method for acquiring and reconstructing magnified specimen of medical images wherein the analysis of the image outputs a numerical score on the display window (Col. 6, lines 29-36). Thus the numerical score of Bacus2 reads on the claimed non-image diagnostic result. Therefore it would have been obvious for one ordinarily skilled in the art at the time of the invention was made to combine Bacus2 with Taubman and Bacus1 in order to give the user more information on the image data displayed.

As to claim 2, Taubman teaches wherein transmitting the compressed medical image includes transmitting the compressed medical image over a global packet-switched network (the network could be anything from a local area network to the internet; Col. 21, lines 5-6).

As to claim 3, Bacus1 teaches transmitting region information separate from the compressed medical image from the remote view station to an image server at the first location, wherein the region information defines the selected region of the displayed medical image (the X-Y coordinate information is specified in the data structure which enables X-Y translation of the specific image tiles and specific pixels within the image; Col. 22, lines 1-3).

As to claim 4, Bacus1 teaches wherein the region information comprises pixel coordinates (the X-Y coordinate information is specified in the data structure which enables X-Y translation of the specific image tiles and specific pixels within the image; Col. 22, lines 1-3).

As to claim 5, Taubman teaches at the first location, receiving from the remote view station a request for improved resolution of the selected region (server receives the request from the client the request for the region-of-interest; Col. 21, lines 51-54); determining image data to send to the remote view station to provide improved resolution of the selected region (the server accesses the blocks across different subband; Col. 21, lines 53-56); and sending said image data to the remote view station (sends the higher subband blocks to the client; Col. 21, lines 53-56).

As to claim 6, Bacus1 teaches wherein said determining the image data comprises identifying pixel data in the source image corresponding to the selected region in the displayed medical image (the X-Y coordinate information selected by the user is translated into specific image tiles or portions therein, the computer then takes the information and retrieves the stored image; Col. 22, lines 8-13).

As to claims 9-15, they are the system claims of method claims 1-6. Please see above for detail analysis.

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As to claim 8, Bacus2 teaches wherein applying the image analysis operations includes outputting a score and communicating the score to the remote view station for display (a method for acquiring and reconstructing magnified specimen of medical images wherein the analysis of the image outputs a numerical score on the display window; Col. 6, lines 29-36).

As to claims 16 it is the system claim and computer-readable medium of claim 8. Please see above for detail analysis.

As to claims 17-22 and 24 they are the computer-readable medium of method claims 1-6 and 8. Please see above for detail analysis.

5. Claims 7, 15 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taubman in view of Bacus1 and Bacus2 as applied to claims 1-6, 8-14, 17-22 and 24 above, and further in view of Burns (US 5,737,446).

As to claim 7, Taubman and Bacus1 do not teach wherein said determining the image data comprises calculating image data lost in the lossy compression operation. Burns teaches determining loss characteristics by obtaining lossy frequency domain (Fig. 3). Thus Burns's lossy determination reads on the claimed calculating image data loss. Therefore, it would have been obvious for one ordinarily skilled in the art at the time of the invention to combine Burns with Taubman and Bacus11 in order to digitally enhance images (Burns Col. 2, lines 14-15).

As to claims 15 and 23, they are the system claim and computer-readable medium of claim 7. Please see above for detail analysis.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLAIRE WANG whose telephone number is (571)270-1051. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C Bella/
Supervisory Patent Examiner, Art
Unit 2624

Claire Wang
02/16/2009